

ESTABLISHMENT OF RESIDENTIAL FLOOD DAMAGE FUNCTION MODEL FOR KUANTAN, MALAYSIA

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ABSTRACT

Flood damage estimation is an essential element in the assessment of flood risk. However, the study on flood damage in developing countries is limited due to the scarcity of historical data. An attempt has been made to derive residential flood damage function models and flood depth-damage curve for the year 2013 flood in Kuantan, in the state of Pahang in Malaysia. A field survey was conducted to gather information regarding the flood event based on face to face interview technique. The education background, household income, and construction materials had significant influence on the variation of structural flood damages, whereas the content damage was found to be depended mostly on the types of occupation, household income, and house type. The flood depth-damage curves obtained in this study are satisfactory as content and structural damage show R^2 above 0.80 for both, and can be used for future studies on flood damage assessment of the study area.

Keywords: Flood damage estimation, Flood damage function, Flood depth-damage curve, Residential, Malaysia

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